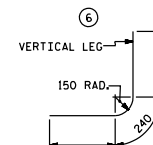


F.A. PROJECT NO.

NOTES

ASSUMED LIVE LOAD -----MS18 OR ALTERNATE LOADING.  
DESIGN FILL-----  
FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET.  
76mm Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.  
CONCRETE IN CULVERTS TO BE POURED IN THE FOLLOWING ORDER:  
1. WING FOOTINGS AND FLOOR SLAB INCLUDING 100mm  
OF ALL VERTICAL WALLS.  
2. THE REMAINING PORTIONS OF THE WALLS AND WINGS FULL  
HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS.  
THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE  
STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE  
OF THE FILL.  
THIS BARREL STANDARD TO BE USED ONLY ON DOUBLE BARREL CULVERTS LESS  
THAN 2.439m VERTICAL CLEARANCE ON 135° SKEW AND TO BE USED WITH  
STANDARD WING SHEET FOR THE SAME SKEW AND VERTICAL CLEARANCE.  
DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL  
EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.  
TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED  
TO LIMIT THE POURS TO A MAXIMUM OF 21.0m. LOCATION OF JOINTS SHALL  
BE SUBJECT TO APPROVAL OF THE ENGINEER.  
STEEL IN THE BOTTOM SLAB MAY BE SPICED AT THE PERMITTED CONSTRUCTION  
JOINT AT THE CONTRACTOR'S OPTION. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES  
SHALL BE PAID FOR BY THE CONTRACTOR.  
AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL  
IN THE INTERIOR FACE OF EXTERIOR WALL AND BOTH FACES OF INTERIOR WALLS  
ABOVE LOWER WALL CONSTRUCTION JOINT. THE SPLICE LENGTH SHALL BE AS PROVIDED  
IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE  
TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.  
AT THE CONTRACTOR'S OPTION HE MAY SUBMIT, TO THE ENGINEER FOR APPROVAL,  
DESIGN AND DETAIL DRAWINGS FOR A PRECAST REINFORCED CONCRETE BOX CULVERT  
IN LIEU OF THE CAST-IN-PLACE CULVERT SHOWN ON THE PLANS. THE DESIGN SHALL  
PROVIDE THE SAME SIZE AND NUMBER OF BARRELS AS USED ON THE CAST-IN-PLACE  
DESIGN. FOR OPTIONAL PRECAST REINFORCED CONCRETE BOX CULVERT, SEE SPECIAL  
PROVISIONS.

TOTAL STRUCTURE QUANTITIES	
CLASS A CONCRETE	
BARREL @ _____ m <sup>3</sup> / m _____ m <sup>3</sup>	
WINGS ETC. _____ m <sup>3</sup>	
TOTAL _____ m <sup>3</sup>	
REINFORCING STEEL	
BARREL _____ kg	
WINGS ETC. _____ kg	
TOTAL _____ kg	
CULVERT EXCAVATION ----- LUMP SUM	
FOUNDATION COND. MAT'L ---- METRIC TONS	



BAR TYPE  
DIMENSIONS ARE OUT TO OUT

PROJECT NO. \_\_\_\_\_  
\_\_\_\_\_ COUNTY  
STATION: \_\_\_\_\_

SHEET 1 OF 2

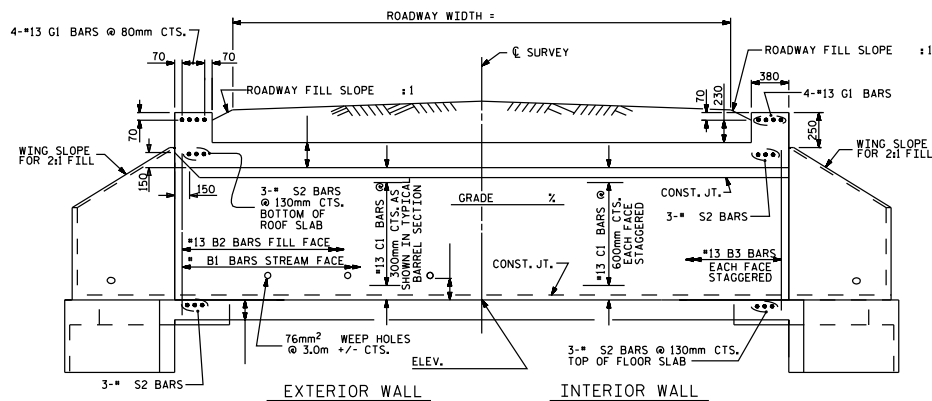
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH BARREL STANDARD DOUBLE m X m CONCRETE BOX CULVERT WITH VERTICAL CLEARANCE OF LESS THAN 2.4m 135° SKEW					
REVISIONS				SHEET NO.	
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		
				TOTAL SHEETS	

STD. No. CB2135SM

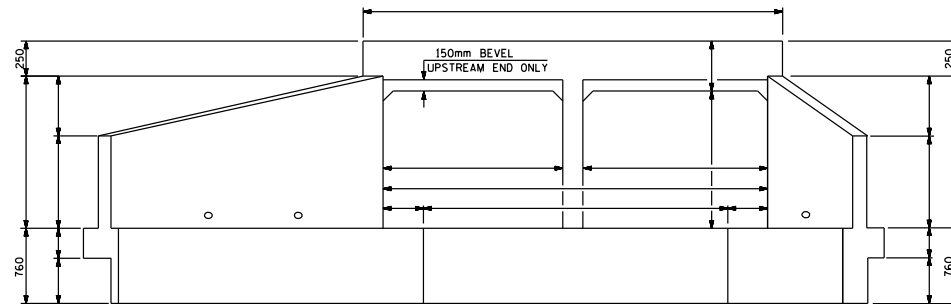
LOCATION SKETCH

PROFILE ALONG CULVERT

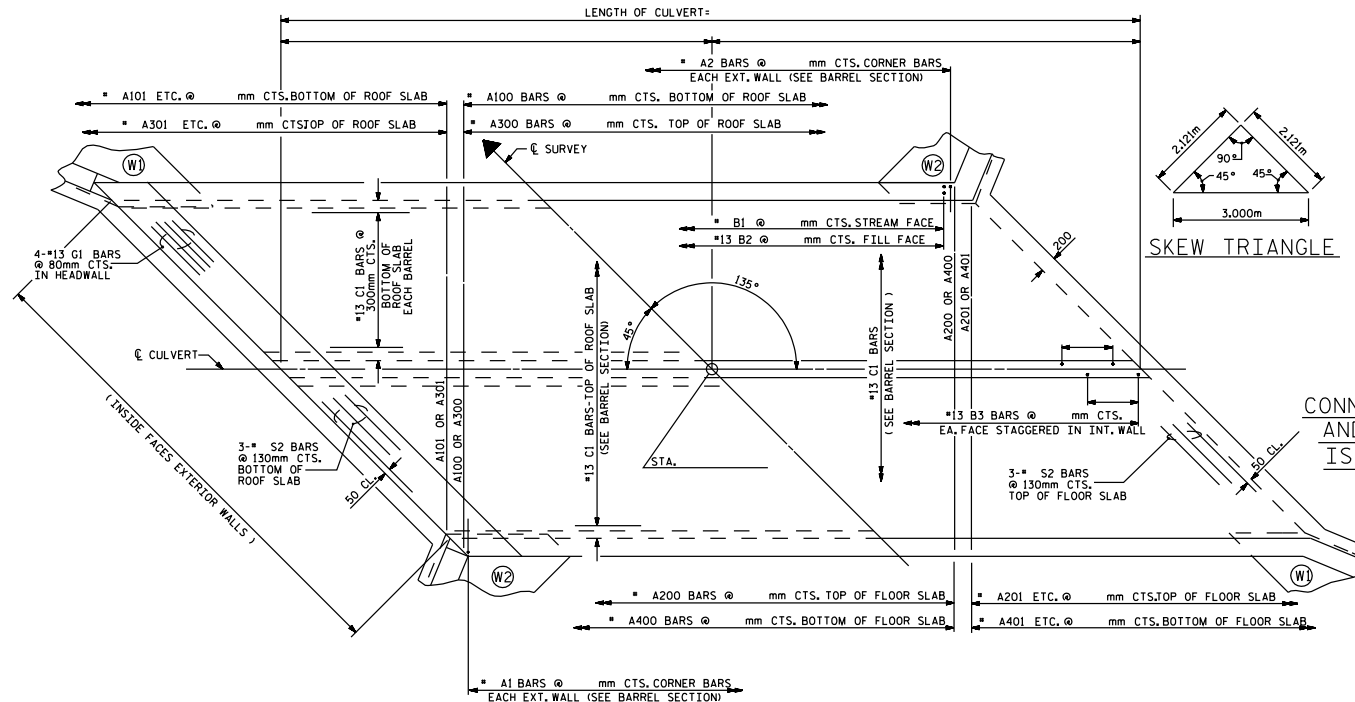
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CHECKED BY : ARB 7/97	



EXTERIOR WALL INTERIOR WALL  
CULVERT SECTION NORMAL TO ROADWAY



END ELEVATION NORMAL TO SKEW



PART PLAN - ROOF SLAB

PART PLAN - FLOOR SLAB

DETAIL  
CONNECTION OF WING FOOTING  
AND FLOOR SLAB WHEN SLAB  
IS THICKER THAN FOOTING



PROJECT NO. \_\_\_\_\_

\_\_\_\_\_ COUNTY

STATION: \_\_\_\_\_

SHEET 2 OF 2

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
BARREL STANDARD  
DOUBLE m X m  
CONCRETE BOX CULVERT  
WITH VERTICAL CLEARANCE  
OF LESS THAN 2.4m  
135° SKEW

REVISIONS				SHEET NO.	
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		
				TOTAL SHEETS	

STD. No. CB2135SM

ASSEMBLED BY :	DATE :
CHECKED BY :	DATE :
DRAWN BY : EEM	6/97
CHECKED BY : ARB	7/97